

KITCHEN APPLIANCE

5 Cross-Reference to Related Application:

This application is a continuation, under 35 U.S.C. § 120, of copending international application No. PCT/EP02/09460, filed August 23, 2002, which designated the United States; this application also claims the priority, under 35 U.S.C. § 119,
10 of German patent application No. 101 42 243.1, filed August 29, 2001; the prior applications are herewith incorporated by reference in their entirety.

Background of the Invention:

15 Field of the Invention:

The invention relates to an electrical kitchen appliance, specifically a fruit press with a mounting for an electrical motor.

20 Such a kitchen appliance is already known from European Patent EP 0 362 058 B1. A fruit press with an electrical motor is described therein. The motor is located within the housing. A drive belt and a belt pulley power a drive shaft on which the fruit press is mounted.

Summary of the Invention:

It is accordingly an object of the invention to provide a kitchen appliance that overcomes the hereinafore-mentioned disadvantages of the heretofore-known devices of this general
5 type and that improves upon an electrical kitchen appliance to have a simpler and more compact structure.

With the foregoing and other objects in view, in an electrical kitchen appliance having an electrical motor, there is
10 provided, in accordance with the invention, a motor connection including a motor mount configured as a hollow cylinder with an open front wall, the motor mount mounting the electrical motor therein through the open front wall.

15 The kitchen appliance according to the invention has a mounting substantially configured as a hollow cylinder and the electrical motor is inserted into the mounting through an open front wall of the mounting.

20 The motor may be quickly connected with the remaining parts of the kitchen appliance, specifically with the housing parts, by this measure.

In accordance with another feature of the invention, an
25 exterior wall of the mounting that is divided into wall segments running in longitudinal direction is especially

suited for the quick connection. The wall segments have supports on their interior side to connect with counter-supports of the electrical motor.

5 In accordance with a further feature of the invention, the electrical motor has counter-retaining devices, the motor mount has a longitudinal extent and an exterior wall divided into wall segments in a direction of the longitudinal extent, and the wall segments have retaining devices connecting with
10 the counter-retaining devices of the electrical motor.

In accordance with an added feature of the invention, the wall segments have detents on their interior side, which work together with the openings in an exterior panel of the
15 electrical motor. The detents on the wall segments latch into the openings in the exterior panel of the electrical motor by inserting the electrical motor from the open front side of the mounting into the mounting.

20 In accordance with an additional feature of the invention, additional care has been taken to stabilize the angular position of the longitudinal axis of the electrical motor.

Devices for a clear stabilization of the position of the
25 electrical motor in the direction of rotation of the electrical motor attached to the mounting and to the

electrical motor serve this purpose. For example, an indentation or a fitted snap or a longitudinally disposed projection on the interior of the exterior wall or on one of the wall segments of the mounting that corresponds with an appropriate groove in the exterior wall of the electrical motor is suitable.

In accordance with yet another feature of the invention, a mounting of the electrical motor also serves as the attachment of a circuit board in the kitchen appliance in an especially suitable further development. The mounting plate has attaching devices for a connection with counter-devices in the circuit board.

A compact and simple attachment and assembly is produced for the motor as well as for the circuit board by the configuration. The assembly simultaneously serves as safeguard against overloads.

In accordance with yet a further feature of the invention, the retaining devices for the circuit board are, preferably, also disposed on wall segments of the mounting.

In accordance with yet an added feature of the invention, the mount has wall segments and the retaining devices are located on the wall segments.

A kitchen appliance in which the circuit board is placed onto the mounting from the open front wall has been proven to be suitable.

5

A kitchen appliance in which at least two of the wall segments of the mounting have projections over the front end of the mounting that may be pushed through openings in the circuit board are viewed as suitable and advantageous configurations.

10

In accordance with yet an additional feature of the invention, the open front wall is configured to receive the circuit board thereon in a push-fit to connect the circuit board to the mount at the open front wall.

15

Also advantageous are projections with slits into which the detents projecting into the openings of the circuit board are pushed therein.

20 In accordance with again another feature of the invention, a flexible material, especially plastic, is especially suitable as material for the mounting.

In accordance with again a further feature of the invention,
25 it is furthermore of a special advantage if the circuit board has an opening through which the electrical motor is

accessible through which especially the electrical connections of the electrical motor are passed through.

With the objects of the invention in view, in a fruit press
5 having an electrical motor, there is also provided a motor connection including a motor mount configured as a hollow cylinder with an open front wall, the motor mount mounting the electrical motor therein through the open front wall.

10 With the objects of the invention in view, there is also provided an electrical kitchen appliance, including a housing, an electrical motor disposed in the housing, and a motor mount configured as a hollow cylinder with an open front wall, the motor mount mounting the electrical motor therein through the
15 open front wall.

With the objects of the invention in view, there is also provided an electrical fruit press, including a housing, an electrical motor disposed in the housing, and a motor mount
20 configured as a hollow cylinder with an open front wall, the motor mount mounting the electrical motor therein through the open front wall.

Other features that are considered as characteristic for the
25 invention are set forth in the appended claims.

Although the invention is illustrated and described herein as embodied in a kitchen appliance, it is, nevertheless, not intended to be limited to the details shown because various modifications and structural changes may be made therein
5 without departing from the spirit of the invention and within the scope and range of equivalents of the claims.

The construction and method of operation of the invention, however, together with additional objects and advantages
10 thereof, will be best understood from the following description of specific embodiments when read in connection with the accompanying drawings.

Brief Description of the Drawings:

15 FIG. 1 is a fragmentary, longitudinal cross-sectional view of a kitchen appliance according to the invention with a mounting for an electrical motor and a plan view of the motor;

FIG. 2 is a plan view of a circuit board according to the
20 invention; and

FIG. 3 is a perspective and partially hidden view of the kitchen appliance of FIG. 1.

Description of the Preferred Embodiments:

Referring now to the figures of the drawings in detail and first, particularly to FIG. 1 thereof, there is shown a kitchen appliance having a housing 1 in which a mounting 2 is located. The mounting 2 is of either metal or plastic. The mounting 2 has the form of a hollow cylinder open toward the lower front wall. The mounting 2 is provided with slits 4 on its exterior wall 3 from the front wall that divide the exterior wall 3 into wall segments 5. The wall segments 5 are sufficiently flexible based on the flexibility of the material of which the mounting 2 is constructed to be easily pushed apart. The wall segments 5 alternately have projections or detents 6 that project toward the interior. These projections 6 have a surface 7 in direction of insertion slanted toward the interior over which an electrical motor 8 may be pushed on so that the detents 6 in the openings 9 grip into an exterior wall of the electrical motor 8. The electrical motor 8 is, thereby, secured over its circumference by four detents 6 and is, therefore, securely locked in position.

Some of the wall segments 5 have projections 10 near the open front wall of the mounting 2. For example, the wall segments 5 on which the detents 6 are also located are equipped with projections 10. Alternatively, specifically those wall segments 5 that are equipped with the projections 10 do not have any detents 6.

The detents 10 are sufficiently wide so that they may be inserted through openings 11 in a circuit board 12. To ensure that these are tightly connected with the mounting and that the mounting will remain in this position, the projections 10 have slits 13 into which the fastening projections 14 that project into openings 11 are inserted when circuit board 12 is pushed or snapped upward from below onto the mounting 2.

10 The circuit board 12 is provided with an at least substantially circular opening 15 through which the electrical motor 8 is accessible. The electrical connections of the electrical motor 8 are specifically connected through the opening 15.

15

The invention places the mounting 2 in a kitchen appliance, specifically, in a fruit press, in which an electrical motor 8 and a circuit board 12 are mounted by a simple method. They are easily inserted into the mounting 2, which is configured
20 as a hollow cylinder with flexible wall segments 5.